

Digital Camera Tips:

1. Know your camera! Always read the key sections of the manual. Find out what all the different switches, buttons and controls do. Learn how to use the flash and how to switch it off.
2. Before you begin taking pictures, be sure to set the date and time! To find the exact time at your site to set your camera (and watch), visit www.time.gov. To avoid confusion, it's best to use the Standard Time for your area all year and not make a change for Daylight Time. Every week or so, be sure to check the time setting. Reset the time if it is more than a few seconds away from the correct time.
3. If the camera has a feature for stamping each photo with the data and time, you might want to activate it for some of your science projects.
4. Practice making photographs before using the camera to do science.
5. Use the camera's highest resolution (check the manual for how to do this). If you want smaller photos for the Internet, you can use photo software to reduce their size.
6. Be sure to keep your camera battery charged or have a spare battery handy. If your camera uses replaceable batteries, rechargeable batteries save money and cause less environmental impact.
7. Always be sure the camera's lens is clean! Carefully remove lint, smudges and fingerprints with lens paper. Avoid using facial tissue that might have chemicals in the paper.
8. Become familiar with the camera's scene modes so you can quickly switch between a close-up of a flower and a picture of a cloud over the horizon.
9. If the camera has a zoom lens (most do), experiment with different setting of the lens. It's usually best to use only the optical zoom only. Digital zoom will not gain you anything that you can't do using photo processing software.
10. If the camera has a viewfinder (the little window you look through to compose the scene you plan to photograph), the view through the viewfinder is usually less than what the camera actually sees. Experiment to find out the difference for a particular camera.
11. Use the camera's flash to brighten nearby subjects that are shaded. The flash is especially helpful at helping remove shadows.
12. Always have a spare memory card handy. You never know when it will be needed.
13. A tripod is very important when the light is subdued. The camera will need more time to take a photo in subdued light, and the tripod will hold it steady. Keep a close watch on

a tripod-mounted camera to make sure no one accidentally trips over it! If you find yourself without a tripod, try resting the camera as steadily as possible against a fixed object, such as a fence post, side of a building or a car roof.

14. Regularly download the camera's memory cards to a computer disk drive. Be sure to back up the downloaded photos on a second computer or disk. A CD-ROM will store hundreds of high resolution images.

15. Digital cameras are delicate. Protect the camera from rain and water. Always keep the camera in a padded case when it is not in use.

16. Store the camera in a secure location away from direct sunlight. Never store the camera in a closed car on a hot summer day.

17. Learn to use an image processing program to digitally enhance your photos.

18. If you accidentally erase the images from a memory card, various programs will usually allow you to recover the lost images if you have not reformatted the card.

19. It's very easy to use photo processing software to enhance or otherwise alter your photos. There can be legitimate reasons for altering photos, but you must always explain the details if you use an altered photo in a science project or publication.

20. Finally, in this era of concerns about privacy and terrorism, it's best to respect others and to avoid creating suspicion about your photography. Never post photos of people online without their permission. Taking photos near a power plant, military installation or airfield might raise suspicions. It's best to find a place away from such facilities.